

City of Kingsport, TN
Public Information & Education (PIE) Plan

In fulfillment of Minimum Control Measure 1, BMP 1B
TN Small MS4 General NPDES Permit No. TNS075388

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1. Introduction

This Public Information and Education (PIE) Plan presents a framework for the City of Kingsport's stormwater public education and outreach program. The PIE plan is required by the State of Tennessee Small Municipal Separate Storm Sewer (MS4) General NPDES (henceforth referred to as "the Small MS4 Permit"). The City is authorized to use the permit under Permit Tracking No. TNS075388. The requirements of the PIE plan are listed in section 4.2.1 of the small MS4 permit, and must provide for the following actions:

- Detail specific goals and public information events/activities that will occur over the remainder of the permit cycle;
- Incorporate components from outreach campaigns and one-on-one communications;
- Incorporate a mode to evaluate the plan's effectiveness so adjustments can be made (if necessary); and,
- Include targeted educational campaigns addressing the following issues:
 - a. General public awareness on the impacts on water quality from general housekeeping maintenance/activities;
 - b. Homeowner associations and other operators of permanent BMPs awareness of the importance of maintenance activities;
 - c. Local engineering and development community awareness of the stormwater ordinance, regulations and guidance materials related to long-term water quality impacts;
 - d. General public and professional chemical applicators awareness on the proper storage, use, and disposal of pesticides, herbicides and fertilizers use;
 - e. General public and professional chemical applicators awareness on the proper storage, use and disposal of oil and other automotive-related fluids;
 - f. General public and municipal employees on the awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.;
 - g. Local engineering, development and construction community awareness of stormwater ordinances, regulations and guidance materials related to construction phase water quality impacts; and
 - h. Municipal employee/contractor awareness of water quality impacts from daily operations.

The objective of this PIE Plan is to document the City's plan for compliance with these requirements.

The PIE Plan shows that the City's PIE program provides both general information on impacts of stormwater discharges to water bodies and the steps that the public can take to reduce pollutants in stormwater runoff, and more targeted information for specific water resources, audiences, and/or pollutants located within the MS4. In other parts of the Small MS4 Permit, the City, as the MS4 operator, is required to serve as regulator or maintenance provider. The public education requirement engages the City in the more subtle role of educator, and invokes the use of marketing strategies, rather than citations, inspections or physical maintenance activities. The public education requirement is predicated on the idea that awareness of positive and negative behaviors can empower residents within an MS4 to have a positive impact on stormwater quality in their daily activities. Thus, if the MS4 can demonstrate it is promoting awareness, in tandem with its other responsibilities, then it has positioned itself to implement its stormwater management program to the maximum extent practicable standard, as required by

law. In addition to meeting the legal requirement, implementing a stormwater information and education program pays credence to the adage, “an ounce of prevention is worth a pound of cure”. Though results can be difficult to measure, implementing an education program is generally considered more cost-effective than enforcement and/or physical corrective actions..

Most of the public information and education measures documented in this PIE Plan are already in place as part of the City’s on-going Small MS4 Permit compliance program. The PIE Plan incorporates these existing activities and provides for new measures that address targeted geographic areas, people, or pollutants to meet the requirements of the current effective Small MS4 Permit. The plan provides a mode for evaluating effectiveness by establishing a method to record metrics for each educational activity, keeping in mind that the goal is to impress upon, or “touch” people and/or groups. By observing the number of impressions made from year to year, the City can evaluate the extent of its effort and decide whether it is properly allocating its resources, or if changes are needed. The metrics are also useful for the reporting requirement for the small MS4 permit.

2. Diagnosing Potential Stormwater Problems to Identify Targets

One way to identify specific streams and/or pollutants is to use information prepared by the State of Tennessee in the published 303(d) List of impaired streams. It is important to understand that the 303(d) List is prepared for watershed planning purposes, and small MS4s represent one of many watershed stakeholders in the overall process of addressing water quality issues. The City may choose to supplement information gathered from the 303(d) list with information it collected on its own, including, but not limited to visual observations in the field, information obtained from complaints, enforcement activities, or highly effective programs. Through examination of the 303(d) list, the City can determine which local water resources are exhibiting negative impacts, in the form of pollutants, which may be attributed to stormwater runoff from the small MS4. The next step is to consider the individuals or groups whose behaviors may affect the introduction of those pollutants to the MS4, thus identifying the target audience(s). Information and education on how their activities can have an impact on water quality can then be provided by the MS4, with the intent that the target audience will be inclined to change their approach to those activities. Target audiences are selected through a process of determining whose behaviors have the most potential to contribute pollutants to streams. This PIE Plan outlines activities that will be directed toward these targets. This PIE Plan outlines activities that will be directed toward these targets, which are identified in Table 1 below.

Table 1. PIE Plan Targets for the City of Kingsport TN

Target Streams	Target Pollutants	Target Audience(s)
<ul style="list-style-type: none"> - Reedy Creek - Madd Branch - Tranbarger Branch - Horse Creek - Gammon Creek - Gravelly Creek - Miller Branch - Leslie Branch - Fall Creek - Wagner Creek - Clark Branch - U.T. Reedy Creek - Little Horse Creek - Kendrick Creek - Rock Springs Branch - Gaines Branch 	<ul style="list-style-type: none"> - Escherichia Coli - Physical Substrate Habitat Alterations - Habitat Loss Due to Alteration in Stream-Side or Littoral Vegetative Cover - Loss of biological integrity due to siltation -Other Anthropogenic Habitat Alterations 	<ul style="list-style-type: none"> - Land Developers - Design Community - Contractors - Construction Workers - General Public - Municipal Employees - TBD by MS4 based on information collected in the field.

In addition to targeted information, broad-spectrum information provided to the general public has a place in stormwater information and education programs because it offers opportunities to introduce the concept of stormwater systems and their impacts on receiving waters. People can relate to places where they derive drinking water or recreate. More importantly, they can see the value in protecting those resources, which could result in positive behavioral changes. An advantage of incorporating general information for a general audience is that materials are typically already developed and available, relieving the City of the burden to develop new ones. Partnerships are often formed for the purpose of delivering stormwater messages to the general public, which also effectively leverages the city's resources. For these reasons, the City has chosen to implement a number of activities that address general information to the general public.

3. Public Information and Education Activities and Goals

A number of public information and education activities are currently being implemented by the City as a result of permit requirements that exist outside of public education and public outreach minimum control measures. New educational activities were added as a result of the issuance of the 2010 Small MS4 Permit. The total of these activities comprise the PIE Plan, which is presented in Table 2. The activities and goals are set to meet targets or provide general information with the resources that are available to the City. Each activity is associated with one or more message delivery methods or activity types. The chosen activities correspond with permit requirements.

Table 2. PIE Plan Activities and Goals

#	Description	Goal(s)	Type	Target Groups	Target Pollutants	Target Streams	MS4 Permit Citation(s)
1	Website	-To promote awareness on the water quality impacts from general housekeeping and maintenance practices. -To provide information on how to identify and report suspected illicit discharges. -Provides notice to the public for meetings. -To make development and construction community aware of long-term impacts of development and ordinances, policies and guidance materials related to daily activities. *Includes outreach to professional chemical applicators, (see #8 below).	Internet	Public	All	All	4.2.1.a, d-h 4.2.2
2	Public Service Announcements (PSAs)	To broaden the public understanding of the storm sewer system and how behaviors contribute to water quality.	Radio/TV	Public	All	All	4.2.1.a, d, e, f
3	Public School Outreach	To engage youth by empowering students to make or influence informed choices on behaviors that affect stormwater.	Events, Printed Materials	School Children, Public	All	All	4.2.1
4	Watershed Groups	To provide resources and staff support to groups which encourage citizens to take ownership of their water resources.	Events	Public	Solid Waste/Litter	All	4.2.2
5	Public Notices	To comply with applicable state and local laws governing this activity.	Publications, Internet	Public	N/A	N/A	4.2.2
6	Hazardous Waste Collection Event Advertisements	To promote awareness that the improper disposal of these items has an impact on water quality,	Internet Pamphlets	Public	Household Hazardous Waste	All	4.2.1
7	Municipal Employee Training	To make municipal employees aware of water quality impacts from daily operations, and to education staff on how to identify and report illicit discharges.	Training Event	Municipal Staff	All	All	4.2.1.h
8	Outreach to Professional Chemical Applicators**	To limit the improper storage, use and disposal of pesticides, herbicides and fertilizers	Internet, Radio/TV	Landscapers, Automotive	PHFs, Automotive Waste	All	4.2.1.b

***Indicates new activity to be added to existing program. ** Approached through the City's website and PSAs.**

4. Public Information and Education Implementation and Metrics

Under section 4.2.1 of the Small MS4 Permit, the PIE Plan must include a mode for evaluating effectiveness. The City must also track and maintain records and report education and outreach activities in the annual report for the small MS4 permit. The City will accomplish these requirements by providing a specific implementation schedule, with interim goals, and a way to record metrics for activities as they are performed. The annual entry of results verifies that the intended audience is being reached according to the plan. If any results are insufficient, reduced or missing, the City can seek adjustments to properly address inadequacies. Table 3 below outlines the implementation schedule and corresponding metric(s) for each PIE Activity, along with a place to enter results annually.

Table 3. Public Information and Education implementation and Metrics

Activity	Supporting Documentation	Metric	Results	
			Permit Year	
1. Website	Printed copies of webpages, record of updates and/or url	Number of web hits	2	
			3	
			4	
			5	
2. PSAs	Receipt of payment, summary of statistics showing which stations and number of times per day/month/year. Approximate number of listeners/viewers in area.	Approx. Number of Listeners and Broadcasts	2	Refer to TAB reports
			3	
			4	
			5	
3. Public School Outreach	Note information on number of students from correspondence with teachers.	Est. Number of Students/Teachers	2	506
			3	527
			4	551

			5	566
4. Support/Partici pate in Watershed Groups	Copies of sign-in sheets from meetings, other evidence of city participation.	Number of Participants in Events	2	
			3	
			4	
			5	
5. Public Notices	Web hit counter, newspaper circulation information, number of posted notices and list of locations where they are placed	Number of Notices/Number of People in Attendance at Hearings and/or Comments Received	2	
			3	
			4	
			5	
6. Hazardous Waste Collection Event Advertisement	Web hit counter Number of pamphlets distributed	Number of Web Hits,	2	
			3	
			4	
			5	
7. Municipal Staff Training	Sign-in sheets with name, date and topic	Number of Staff Trained	2	73
			3	46
			4	72
			5	65